

REMARKS

Claims 1-16 and 18-21 are pending in the application. Claims 8, 9, and 19-21 are allowable. Claims 1, 4, 6, 10, 12, 14, 15 and 18 are rejected and Claims 2, 3, 5, 7, 11, 13 and 16 are objected to. Claims 1 and 4 are currently amended.

Claims 1 and 4 have been amended to add a further limitation that each direct repeat contains a nucleic acid sequence encoding a peptide. These amendments are made for purpose of clarification only. The original specification discloses that the a gene of interest is used as direct repeats and that the gene of interest may include nucleic acid sequences encoding proteins (See paragraphs 7 and 33 of the original application). Therefore, these amendments do not introduce new matter into the application by adding a further limitation to the claims.

Claim Rejections—35 U.S.C. §103(a)

Claims 1, 4, 6, 10, 12, 14, 15 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,534,315 issued to Bauer in view of Ow (WO 93/01283). The Examiner reasoned that the present claims do not have limitation “requiring that the entire coding sequence of the gene of interest be comprised by the construct or that the construct be configured such that the gene of interest is expressed.” Page 6 of the Office Action dated 12/15/06. Applicant has amended the claims such that Claims 1 and 4, as amended, require that the construct be configured such that the DRS contains a coding sequence. Applicant respectfully requests that the obviousness rejection be withdrawn because the cited references taken as a whole do not teach or suggest all the claim limitations of the claims as amended.

The major difference between the presently claimed invention and Bauer is that Bauer does not teach direct repeats that can themselves serve as coding sequence. The present invention uses a gene of interest as the direct repeats which can be coding sequences. Paragraph 7 shows the two repeats of the gene of interest flanking the selectable markers, and Paragraph 33 teaches that the gene of interest may be DNA sequences encoding therapeutically or commercially relevant proteins. By contrast, Bauer teaches that the DRS sequence is noncoding and that “noncoding sequence” means a sequence is not translated into the form of a peptide (Lines 45-48, Col. 4 of Bauer).

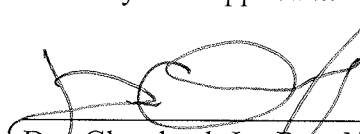
The Examiner states that “Bauer does teach that, in one embodiment, the DRS might be of a gene of interest that encodes a protein.” Page 6 of the Office Action dated 12/15/06. However, according to the Examiner’s definition of the term “of,” the fact that the gene of interest encodes a protein does not necessarily mean that the DRS encodes a protein or a peptide. Indeed, Bauer teaches that the DRS should be noncoding. (See e.g., lines 45-48, Col. 4 and lines 22-28, Col. 7 of Bauer “made noncoding by any appropriate means such as changing the reading frame or the introduction of stop codons.”). One of skills would conclude from Bauer that every effort should be made to ensure that the DRS is noncoding. If anything, Bauer teaches away from the presently claimed invention. Ow does not touch upon the subject of a direct repeat sequence (DRS) that is coding, as is presently claimed.

Lacking any teaching or suggestion of the use of DRS containing a nucleic acid sequence capable of coding for a protein, Bauer and Ow, considered as a whole, do not render the amended Claims 1 and 4 obvious. Claims 2-7, 10-16 and 18 depend from either Claim 1 or Claim 4 directly or indirectly. Withdrawal of the obviousness rejections is respectfully requested.

Based upon the foregoing discussion, Applicant’s attorney submits that the amended claims are in a form for allowance and respectfully solicits a Notice of Allowance. The Commissioner is authorized to charge the required fees to deposit account 12-0600.

Respectfully submitted,

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